

Application No. 09/834,165
Response dated November 29, 2005
Reply to Office Action of August 31, 2005

REMARKS

Status Of Application

Claims 25-42 are pending in the application; the status of the claims is as follows:

Claims 32-42 are withdrawn from consideration.

Claims 25, 26, and 28 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,411,306 B1 to Miller et al. ("Miller").

Claim 27 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller et al in view of U.S. Patent No. 5,045,932 to Sharman et al. ("Sharman").

Claims 29-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller et al in view of U.S. Application Publication No. U.S. 2003/0043299 A1 to Lee et al. ("Lee").

35 U.S.C. § 102(e) Rejection

The rejection of claims 25, 26, and 28 under 35 U.S.C. § 102(e) as being anticipated by Miller, is respectfully traversed based on the following:

Miller shows an adjustment mechanism (Figures 5 and 6) for adjusting parameters of a display in response to luminance of the display using display illumination sensor 14 and in response to surround luminance using surround luminance sensor 16. If an initial display illuminance reading I_r differs from a default display luminance I_{def} , then the current luminance of the display is calculated from the display illumination reading. Then the "display device 22 will be adjusted to produce a luminance value that is as close to the calculated values as possible." (col. 5, lines 20-36, Steps S6 and S11-16). Contrast of the display is adjusted inversely with the surround illumination according to the formulas at col. 5, lines 51 and 60 (Steps S9 and S17-20).

In contrast to the cited references, claim 25 includes:

a corrector for correcting an image displayed on said display by changing a display characteristic of the image displayed on said display in accordance with a state of the environment light detected by said detector; wherein said corrector increases contrast in an image displayed on said display and decreases brightness of an image displayed on said display as brightness of said environment light increases. [Emphasis added]

The teaching of Miller shows the opposite of the operation of the corrector in claim 25. Miller decreases contrast with increasing surround illumination (col. 5, lines 51 and 60). In addition, the display illumination sensor does not measure ambient illumination, but rather measures the illumination of the display itself to adjust the display to a calculated value (col. 5, lines 33-35). Miller does not show or suggest a corrector that “decreases brightness of an image displayed on said display as brightness of said environment light increases” because Miller does not show or suggest adjusting the brightness of an image in response to any external condition, but only the illumination of the display itself. Nonetheless, the Office Action cites Miller as showing the claimed elements.

The Office Action cites Figure 3 of Miller as showing elements of claim 25. Figure 3 is a graph of relative brightness perceived versus relative illumination levels for three levels of surround illumination (average, dim and dark). As stated in the Office Action:

... it is clearly shown in figure 3 that **relative brightness of image elements** as a function of the relative luminances for an **average, dim and darkly illuminated surround** is shown as **increasing** for a particular value of relative luminance as the surround light increases from average to dark. Therefore[,] relative brightness of the image elements increases as the environment light decreases[,] which clearly reads on the claim “decreases brightness of an image displayed on said display as brightness of said environment light increases.”

Reliance on Figure 3 is misplaced. As stated in Miller, this chart is provided to show "that the perceived contrast of an image changes as the luminance of the image surround changes." (col. 2, lines 8-10). First, both the illumination and brightness scales are normalized relative scales. Each data point is relative to the arbitrarily chosen 100 luminance v. 100 relative brightness point. For example, at 50% of the luminance of the 100% luminance level produces approximately 70% (average), 75% (dim) or 80% of the 100% brightness level. Nothing in the reference tells us what those brightness levels are for each curve or how they compare to the levels used for the other surround illumination curves. The only thing Figure 3 shows is that contrast decreases as surround illumination decreases. The chart says nothing about the absolute luminance or brightness and is not intended to show that. The chart is intended to show that contrast is perceived to be lower at lower surround illumination.

Second, even assuming that the absolute brightness levels are the same between the curves, Figure 3 suggests that adjusting the brightness to correct luminance at the lower levels of luminance would throw the upper levels of luminance out of correlation. Thus, one skilled in the art would not adjust the brightness level at all based on the data of Figure 3 because it shows that a brightness adjustment to correct perception at one level of illumination would cause incorrect perception at other levels of illumination. In summary, adjusting brightness cannot effectively correct the contrast problem shown in Figure 3.

Third, regardless of the data shown in Figure 3, the teaching of Miller is to decrease contrast with increased surround illumination and to adjust display luminance to match a luminance value calculated from the sensed display illumination. Miller and his co-inventors are clearly skilled in this art. They gathered the data in their patent application and came to a conclusion that is nearly opposite to the limitations of claim 25. No matter what data is presented in the reference, a reference cannot suggest to one skilled in the art a solution that is nearly the opposite of that chosen by the authors of the reference.

Application No. 09/834,165
Response dated November 29, 2005
Reply to Office Action of August 31, 2005

As shown above, the cited references do not show or suggest every limitation of claim 25. Thus, claim 25 is not anticipated by the cited references. MPEP §2131. Claims 26 and 28 are dependent upon claim 25, and thus include every limitation of claim 25. Therefore, claims 26 and 28 are also not anticipated by the cited references.

Accordingly, it is respectfully requested that the rejection of claims 25, 26, and 28 under 35 U.S.C. § 102(e) as being anticipated by Miller, be reconsidered and withdrawn.

35 U.S.C. § 103(a) Rejections

The rejection of claim 27 under 35 U.S.C. § 103(a), as being unpatentable over Miller et al in view of Sharman, is respectfully traversed based on the following.

Sharman shows the use of a luminance sensor 44 including 1920 photosites. (col. 3, line 67 – col. 4, line 11). There is no suggestion of any detection of any environment light. Sharman shows a closed system film scanner. (Figure 1). Environmental light is not relevant to its operation.

Claim 27 depends from claim 25. As provided above in regards to claim 25, Miller teaches nearly the opposite of what is recited in claim 25. Accordingly, claim 27 distinguishes Miller for at least the same reasons as provided with respect to claim 25. Sharman does not show or suggest detecting any environmental light. Therefore, the cited references, alone or in combination, do not show or suggest every limitation of claim 27. Thus, the cited references do not support a *prima facie* case for obviousness (MPEP §2143.03) and claim 27 is patentably distinct from the cited references.

Accordingly, it is respectfully requested that the rejection of claim 27 under 35 U.S.C. § 103(a) as being unpatentable over Miller in view of Sharman, be reconsidered and withdrawn.

Application No. 09/834,165
Response dated November 29, 2005
Reply to Office Action of August 31, 2005

The rejection of claims 29-31 under 35 U.S.C. § 103(a), as being unpatentable over Miller in view of Lee, is respectfully traversed based on the following.

Lee shows video compensation apparatus for a video display (17). Cyan (21-1) and yellow (21-2) sensors detect the light near the video display. The output of these signals is converted to digital red (R'') and blue (B'') signals. A green (G'') signal is synthesized from the red and blue signals and used to provide a sum value (SUM) (paragraph [0047]). This value is used to select contrast, brightness, saturation and sharpness setting (Figure 5B). A color signal component ratio ($\text{Ratio} = B''/R''$) is also determined. This ratio is used to approximate an ambient lighting type and select a color temperature and tint from a table (Figure 5A).

In contrast to the cited references, claim 29 includes:

a corrector for correcting an image displayed on said display by changing a display characteristic of the image displayed on said display in accordance with a state of the environment light detected by said detector, wherein said corrector changes hue of an image displayed on said display in the direction same as hue of said environment light.

The cited references, alone or in combination, do not show or suggest a corrector that adjusts the hue of the displayed image in the same direction as the hue of the environment light. Miller does not show or suggest adjusting the hue at all. Lee adjusts the color temperature based on a color signal component ratio, not to the hue of the ambient light. Therefore, the cited references do not support a *prima facie* case for obviousness of claim 29. Claims 30 and 31 are dependent upon claim 29, and thus include every limitation of claim 29. Therefore, the cited references also do not support a *prima facie* case for obviousness of claims 30 and 31.

Accordingly, it is respectfully requested that the rejection of claims 29-31 under 35 U.S.C. § 103(a) as being unpatentable over Miller et al in view of Lee, be reconsidered and withdrawn.

Application No. 09/834,165
Response dated November 29, 2005
Reply to Office Action of August 31, 2005

CONCLUSION


Wherefore, in view of the foregoing remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

By: _____


Douglas A. Sorensen
Registration No. 31,570
Attorney for Applicants

DAS/Ilb:bar:jjk
SIDLEY AUSTIN BROWN & WOOD LLP
717 N. Harwood, Suite 3400
Dallas, Texas 75201
Direct: (214) 981-3482
Main: (214) 981-3300
Facsimile: (214) 981-3400
November 29, 2005